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EXAMINER

ALSOMIRI, ISAM A

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 6-7, 9, and 11-14 are rejected under 35 U.S.C. 102(b and e) as being anticipated by Burlingham et al US 2006/0201006 or Born et al GB2052021A.

Referring to claim 1, Burlingham discloses in figures 1 and 2 a device (10) for optical distance measurement, in particular a device functioning in accordance with the phase measurement principle [see paragraph 0019], having at least one transmission unit (32) equipped with at least one light source for transmitting modulated optical measurement radiation toward a target object, and having a reception unit (26) for receiving the optical measurement radiation returning from the target object, wherein the device has means that enable a measurement of distances between the device and a target object by means of a triangulation method [0018-19]. Born teaches a similar optical proximity sensor to determine the distance to the target using phase measurement principle or triangulation principal (see Abstract)

Referring to claim 2, the means include the light source of the transmission unit.

Referring to claim 3, the means include at least one position-sensitive sensor.

Referring to claim 6, wherein the position-sensitive sensor also has the capacity to be used for time delay measurement of the modulated measurement signal in particular for a phase measurement of the returning measurement signal [see Burlingham 0019]

Referring to claim 7, wherein the means include at least one set of projection optics (see Burlingham figure 1).

Referring to claim 9, Burlingham further discloses at least one control and evaluation unit (20) for determining a distance of the device from the target object based on the phase shift of the optical measurement radiation returning from the target object [0019].

Referring to claim 11, Burlingham discloses in figures 1 and 2 a method for optical distance measurement in which it is possible to switch back and forth (based on user input (18)) between a phase measurement method for determining a distance of a distance measuring device from a target object [0019] and a triangulation method for determining this distance (additional step using the azimuth and position data (24) [0018-0020]

Referring to claims 12 and 13, same light source (32) is used for the phase measurement method and the triangulation method.

Referring to claim 14, the same detector element (26) is used for the phase measurement method and the triangulation method.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burlingham et al or Born et al.

Referring to claim 4 and 5, Burlingham and Born are silent about the type of detector used in their rangefinders. However, using a planar detector or a linear detector is very well known. It would have been obvious if not already inherent in Burlingham or Born to use a planar or linear detector based on the object and the desired detection.

Referring to claim 8, having a circular aperture is well known in many rangefinder system. It would have been obvious to modify Burlingham or Born to further include the circular aperture for more focused detection and direction.

Referring to claim 10, Burlingham and Born do not disclose a mechanical, slidable measurement stop. However, such mechanical device is well known in certain type of devices where the measurement is limited to move in a defined area. It would have been obvious to include the mechanical slidable stop device depending on the purpose and the use of the rangefinder.

Response to Arguments

Applicant's arguments filed November 7, 2008 have been fully considered but they are not persuasive. Regarding claims 1-14, applicant argues that "Contrary to the Examiner's opinion, the Burlingham reference, however, does not disclose a device for optical distance measurement, which has at least one light source for transmitting modulated, optical measurement radiation and in addition means for measurement of distances via a triangulation method" and that Burlingham does not teach a combination of the measuring principles (phase difference, TOF, and Triangulation), rather can use one of them. In response: First, as applicant admits "A distance measurement for the determination of the phase difference or determination of time-of-flight presumes a modulated optical measurement signal" (page 5); therefore, since the device of Burlingham can operate based on phase difference, TOF, or triangulation; the device must be capable of transmitting modulated signal which reads on the "device" of claim 1. Second; Burlingham as explained above does have the means for measuring the distances between the device and target using triangulation method [0019]; Therefore, reads on the claim 1 and all the dependent claims. Third, applicant is arguing for limitations that are not in the claims, page 5 using "a combination of these measuring principles" is not part of the claim(s) language.

Regarding claim 11, Burlingham does teach using one of the alternative detection methods based on user preference see paragraph [0017, and 0019].

Applicant also presented similar arguments against Born. Born clearly teaches a similar

system using the phase difference principle combined with TOF or the triangulation method, which clearly reads on the rejected claims.

Finally, the idea of using both the phase difference and the triangulation principles or switching between them is well known from the references above, and further would be an obvious combination by combining the separate detection principles.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ISAM ALSOMIRI whose telephone number is (571)272-6970. The examiner can normally be reached on M-TH 6am-3pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 13, 2009

/ISAM ALSOMIRI/
Primary Examiner, Art Unit 3662